



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/840,042

05/06/2004

Mark Edwin Forry

9630

7766

27752

7590

12/28/2007

THE PROCTER & GAMBLE COMPANY  
INTELLECTUAL PROPERTY DIVISION - WEST BLDG.  
WINTON HILL BUSINESS CENTER - BOX 412  
6250 CENTER HILL AVENUE  
CINCINNATI, OH 45224

EXAMINER

CORDRAY, DENNIS R

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

12/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/840,042

Applicant(s)

FORRY ET AL.

Examiner

Dennis Cordray

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 7-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/2/2007 has been entered.

### ***Response to Arguments***

Applicant's amendments filed 10/2/2007 have overcome the rejections of claims over Kershaw et al, alone or with Swoboda. Kershaw et al discloses latex but does not disclose a random pattern of latex. The rejections have been withdrawn.

Applicant's arguments and amendments have failed to overcome the rejections of claims over Chen et al in view of Lin et al. However, the rejections have been amended to address the amendments to the claims. In addition, new grounds of rejection are made as detailed herein.

Applicant argues that Chen et al does not disclose a random pattern of latex.

The tissue product of Chen et al comprises a latex either as a hydrophobic material or as an adhesive. As a hydrophobic material, the latex is applied nonuniformly to the upper surface of the basesheet (col 35, lines 22-24), which the Examiner construes to be a random pattern of latex. As an adhesive, the latex is applied only to the most elevated portions of the basesheet to effect bonding between the hydrophilic

basesheet and the network of hydrophobic fibers with macroscopic openings therein (col 5, lines 4-46). The adhesives can be applied by spray or swirl nozzles, mist, aerosol or droplets to the basesheet through a template or patterned shield (col 5, lines 49-59). While the patterned shield directs the adhesive presumably to uniformly spaced areas of the basesheet, a spray, mist or aerosol application inherently creates a random pattern in the applied areas, thus a random pattern of latex is disclosed.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5 and 7-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a random pattern of latex." It is not clear what is intended to be a random pattern. Is the latex applied to a surface in a random pattern? Is the latex randomly distributed throughout the tissue? Is the latex applied in patches randomly spaced across the tissue? Is the latex applied in one portion of the tissue in a random pattern or in a random pattern across the length, width and/or depth of the tissue? Is the latex applied to cover a percentage of the surface in a random pattern? Is the latex applied at a nonuniform thickness across the web? The metes and bounds of the desired protection are thus indefinite.

Claim 1 also recites that the "sanitary tissue product exhibits an average effective caliper that is greater than the average sheet caliper of an identical sanitary tissue

product in its non-patterned form." The definition of "identical" is: 1. Being the same. 2. Exactly equal and alike. 3. Having such similarity or near resemblance as to be fundamentally equal or interchangeable. (Webster's New Riverside Dictionary, The Riverside Publishing Company, 1984, p 607). The two tissues being compared cannot be identical if one is patterned and the other is not because they are not exactly equal and alike and they are not similar enough to be fundamentally equal or interchangeable. The very basis of the claimed limitation requires the two sheets to be different.

Claims 5 and 7-15 depend from and thus inherit the indefiniteness of Claim 1.

***Claim Rejections - 35 USC § 102 and 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (5990377) in view of Lin et al (5944273) and evidenced by Swoboda et al (6740373).

Claims 1, 5 and 7: Chen et al discloses a patterned fibrous structure or basesheet, which can be used in an absorbent article such as feminine pads, diapers, towels, wipes, or other sanitary tissue product (Abs, col 2, line 64 to col 3, line 6). The structure comprises a latex either as a hydrophobic material or as an adhesive (col 5, lines 39-41; col 34, line 48 to col 35, line 24, especially col 35, lines 3-21; col 37, line 53 to col 8, line 26, especially col 38, lines 5-26). The latex can be an ethylene-vinyl acetate copolymer, an acrylic polymer or a styrene-butadiene copolymer. Specific commercial products recited include Airflex™ and Nacrylic™, which are recited as

suitable latexes on p 8 of the instant Disclosure. The latexes have glass transition temperatures ( $T_g$ ) in the claimed range (see Swoboda et al, 6740373, col 27, Table 5, where a  $T_g$  from  $-7$  to  $29$  °C is listed for several latex formulations of the above described compositions).

As a hydrophobic material, Chen et al discloses that the latex is applied nonuniformly to the upper surface of the basesheet (col 35, lines 22-24), which the Examiner construes to be a random pattern of latex. As an adhesive, the latex is applied only to the most elevated portions of the basesheet to effect bonding between the hydrophilic basesheet and the network of hydrophobic fibers with macroscopic openings therein (col 5, lines 4-46). The adhesives can be applied by spray or swirl nozzles, mist, aerosol or droplets to the basesheet through a template or patterned shield (col 5, lines 49-59). While the patterned shield directs the adhesive presumably to uniformly spaced areas of the basesheet, a spray, mist or aerosol application inherently creates a random pattern in the applied areas, thus a random pattern of latex is disclosed.

Chen et al discloses that the structure comprises two surfaces, either of both of which can be patterned by deforming the basesheet (Figs 1-3; col 26, lines 34-41). The structure can be wet laid or air laid by standard processes (col 28, lines 55-64; col 29, lines 52-63).

Chen et al discloses the deformation height of an uncalendered and uncreped sheet of greater than  $0.5$  mm, or  $500$   $\mu\text{m}$ , with a most preferable range of  $0.4$  to  $1.2$  mm, or  $400$  to  $1200$   $\mu\text{m}$  (col 31, lines 13-26). Calendering and creping are optional

treatments (col 36, lines 30-38) and, in a preferred embodiment, are not used at all (col 29, lines 52-54). Thus base sheets having a deformation height of at least 1200  $\mu\text{m}$  are disclosed in preferred embodiments. With no upper limit to the broader disclosure of greater than 500  $\mu\text{m}$ , the deformation height is only limited by the physical ability of the tissue to stretch without tearing.

Chen et al does not disclose the caliper of rolled tissue. Figures 1-3 and 5-6 show structures of Chen et al that cannot nest. Since the patterned sheets have void spaces beneath the raised portions, the effective caliper of the patterned sheets is inherently greater than the caliper of unpatterned sheets having no void spaces or, at least such difference in caliper would have been obvious to one of ordinary skill in the art at the time of the invention.

Chen et al does not disclose that the sheets are rolled.

Lin et al discloses a process for winding uncreped tissue onto rolls (Abs; col 7, line 65 to col 10, line 2). Lin et al teaches that it is a typical procedure in the manufacture of tissue products to wind the web onto a parent roll and later convert the parent roll to a final product, such as rolls of bath tissue or rolls of embossed paper towels (col 1, lines 4-16).

The art of Chen et al, Lin et al and the instant invention is analogous as pertaining to making patterned tissue paper. It would have been obvious at the time of the invention to make a sanitary tissue product in roll form, such as rolls of bath tissue or rolls of paper towels, from the tissue of Chen et al in view of Lin et al as a typical end product.

Claim 1 is a product-by-process claim. The product of Chen et al in view of Lin et al appears to be the same as or similar to the claimed product, a rolled patterned tissue product comprising latex, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). "In the event any differences can be shown for the product of the product-by-process claim 1 as opposed to the product taught by Chen et al in view of Lin et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)"

Claims 8 and 9: Chen et al discloses in some embodiments that the basesheet has substantially uniform density for good absorption (col 27, lines 38-43). In some embodiments, the structure comprises an underlying fibrous structure that has a pattern of densified regions imparted by embossing or other techniques, thus the structure can have regions of high and low density (col 27, line 54 to col 28, line 3).

Claim 10: Chen et al does not disclose the latex being substantially present in the high density regions of the structure. Chen et al discloses multiple-ply structures wherein the layers can be joined by adhesives (col 36, line 64 to col 37, line 11). Figures 2-3 show such structures. It would have been obvious to one of ordinary skill in the art to use the latex already disclosed as an adhesive (col 5, lines 39-41; col 38, lines 1-6) to join the layers together. Where the lower areas of the basesheet joins either



another layer or the lower areas of a second inverted basesheet, an area of higher density is created because there is no air pocket, thus the latex adhesive would be concentrated more in the high density areas.

Claim 11: In some embodiments, the basesheet has protrusions or deformations extending above and below the plane of the sheet. Thus, both sides are deformed, the depth of deformation for each side being within the claimed range, as discussed above for Claim 1 (col 31, lines 13-26).

Claims 12 and 15: Chen et al does not disclose the HFS absorbency or the wet burst strength of the tissue. The structure of Chen et al is substantially identical to the claimed structure. It would have been obvious to one of ordinary skill in the art at the time of the invention to obtain the claimed properties of HFS absorbency and wet burst strength because, where the claimed and prior art apparatus or product are identical or substantially identical in structure or composition, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). In other words, when the structure recited in the reference is substantially identical to that of the claims, the claimed properties or functions are presumed to be inherent.

Claims 13 and 14: Chen et al discloses the stretch in both cross direction and machine direction of greater than 10% (col 31, lines 30-39). Figure 16 shows the density and basis weight of sheets made. Dividing the basis weight by the density gives the caliper of the sheets (with appropriate unit conversion) from 23.5 to 25 mils.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*DRC*  
DRC

*Eric Hug*  
ERIC HUG  
PRIMARY EXAMINER